

A Work Project, presented as part of the requirements for the Award of a Master Degree in
Management from the NOVA – School of Business and Economics.

Emma Colchão: How to grow in the Portuguese market?

Bernardo José Gervásio Canelas Da Silva

Student Number 3345

A Project carried out on the Master in Management Program, under the supervision of:

Sónia Dahab (Advisor) and Patrícia Xufre (Co-Advisor)

May 21st, 2018

Emma Colchão: How to grow in the Portuguese Market?

Abstract

Emma is a German mattress startup that is already present in 13 European countries, including Portugal since November 2017. This thesis is the result of a Directed Research Internship at Emma for five months. Currently, Emma Colchão sells online and the Emma mattress is a winning-award product in Portugal. The main purpose of this internship was to understand the profile of the Portuguese customer regarding the online purchase of a mattress and identify some strategic actions to boost Emma's growth in Portugal. Analysis of secondary data helped to identify CONFIO as the best trust logo for the Portuguese e-commerce page and to conclude that Emma should not make a partnership with magazine X. Finally, primary data collected through a survey to the Portuguese community, with 116 valid responses, helped to derive useful insights about the Portuguese customer behavior in e-commerce. The general findings show that Emma should also "go offline" by partnering with reputable retailers to increase the customer's reach. Moreover, it should take advantage of the winning-award to overcome the competition, increase sales and grow in Portugal.

Keywords: mattress industry in Portugal, e-commerce, trust, winning-award strategy

Acknowledgments

I would like to thank my supervisor Sónia Dahab, and both professors Patrícia Xufre and Maria Jordão. Also, my colleagues at Emma. Finally, my friends, family (especially parents and sister), and girlfriend.

Table of Contents

Abstract	1
Acknowledgments.....	1
Table of Contents.....	2
Introduction.....	3
Company description and the product Emma Colchão.....	4
Literature Review	
E-commerce in Portugal and the challenges for the mattress industry	5
Advantages of CRM practices	7
Certifiers and DECO PROTESTE	8
Importance of online trust seals	9
The media print channel in Portugal	10
Competitive analysis of the mattress industry with focus on Portugal	11
Five Forces: The mattress industry in Portugal	12
Internal and external environment of Emma Colchão	
SWOT Analysis: focused on the Portuguese e-commerce market	15
Methodology	16
1. Which is the best trust logo for the Portuguese e-commerce page?	16
2. Should we advertise Emma Colchão at Magazine X?	17
3. Survey to the Portuguese customers about buying a mattress online	19
3.1 Sample description	19
3.2 Results from the survey.....	20
3.3 Limitations of the survey.....	24
Conclusion and general recommendations	25
General limitations and future research	25
References.....	26
Appendix.....	29

Introduction

Emma is a German mattress startup that belongs to the German Bettzeit Group. Emma is already present in 13 European countries, and it is expanding its operations to Portugal. The Portuguese sales figures are still quite low in comparison to other markets in which Emma operates, but there is room to grow. The main topic of this project was to analyze the behavior and preferences of Portuguese customers regarding the experience of buying a mattress online. More precisely, to understand if Portuguese customers are willing to purchase a mattress online instead of going to the store and to conclude if whether or not Emma should make strategic partnerships with retailers in order to grow. Additionally, this study includes the analysis of different marketing activities or strategies that contribute to Emma's growth in Portugal. For instance, the selection of the best trust seal for the Portuguese e-commerce page and the decision of making a partnership with a Portuguese furniture magazine to advertise Emma in the print media offline channel.

From January 2nd to May 30th, I was responsible for several activities, such as 1) Exploring the mattress industry in Portugal – online and offline channels; 2) Conducting customer service activities (calls, chat, and e-mail) to understand the client point of view – identify problems and areas to improve; 3) Searching and finding an online purchasing logo for the Portuguese website to leverage trust; 4) Surveying the Portuguese community to gather and determine relevant information about the customer's profile, preferences, and behavior; 5) Understanding how to use the potential of the logo “Best of the Test” by DECO PROTESTE: since Emma's mattress was awarded “Best of the Test” by DECO PROTESTE, I was responsible for using this award to advertise the product (marketing activities) strategically; 6) Evaluating if it is worth to promote Emma in a decoration magazine: use quantitative data to support the decision; 7) Running marketing activities: manage Facebook and Instagram accounts, contact influencers and help in SEO and SEA activities for the Portuguese e-commerce page; 8) Researching about potential retailers in Portugal to make a partnership

with Emma; and 9) Exploring and identifying more methods of payment available in the Portuguese market.

A description of the company Emma Matratzen helps the reader to understand the global aims of the group. To address the questions raised during this project, I conducted a brief literature review of the different topics covered during the Directed Research Internship. Additionally, I made a competitive analysis of the mattress industry with focus on Portugal.

The methodology of my thesis includes three main sections, supported by both secondary and primary data collection:

1. Which is the best trust logo for the Portuguese e-commerce page?
2. Should we advertise Emma Colchão at Magazine X?
3. Survey to the Portuguese customers about buying a mattress online

Company description and the product Emma Colchão

Emma is a German e-commerce startup that belongs to the Bettzeit Group GmbH. The mission of the Group is to “improve people’s sleep and ease their lives”. Emma was founded in 2015 and sells sleeping industry products to the direct consumer, such as mattresses, pillows, smart sleeves and other related products. Emma follows the “bed-in-a-box” concept and has expanded its operations to 13 European countries, including Portugal, since November 2017. Emma’s internationalization process starts as the exportation of the product and may include partnerships with strategic retailers. The Emma mattress was awarded as “Best of the Test” in 6 European countries, due to the premium quality of the mattress. In Portugal, the Colchão Emma (Emma mattress) is currently an award-winning mattress by DECO PROTESTE, the Portuguese Association for Consumer Protection: in November 2017 Emma mattress received the logo “Best of the Test”. Emma was tested among 58 other mattresses, including products from strong brands in Portugal such as Ikea, Pikolin, and

Lusocolchão.

The main features of Emma Mattress are: 1) Product with certified quality by DECO PROTESTE; 2) Free and fast delivery: the product is shipped directly from Germany to the Portuguese customer's door, up to 3 days after payment; 3) Ten-year warranty; 4) 100 nights trial: if customers are not 100% satisfied they can return the mattress and are refunded (return policy); and 5) An excellent and helpful customer service team.

As part of the Bettzeit Group, Emma's decision of entering in the Portuguese market is aligned with the Group's big audacious vision: to "become the largest and most loved sleep company in Europe". Emma Colchão benefits from the standardization of processes: only one type of mattress, which in an awarded product, is available for the Portuguese market, bringing simplification and advantages concerning operations. A VRINNO analysis helps to access the profit earning potential of each unique resources at Emma Colchão (Appendix A).

Literature Review

E-commerce in Portugal and the challenges for the mattress industry

According to a study conducted by ACEPI, the Portuguese Association of Electronic Commerce and Interactive Advertising, 73% of the Portuguese population used the Internet in 2017, and 91% will be using it by 2025 (ACEPI/IDC, 2016). Regarding online purchasing, in 2017, 36% of the Portuguese population used the Internet to buy products or services, a much lower percentage than the average in Europe (approximately 58%). In 2017, Portuguese people spent 4.6 b € in online purchasing and are expected to double this amount by 2025, and more than 50% of the online shopping was done on foreign websites. Additionally, this study highlights that 39% of Portuguese companies have an online presence (ACEPI/IDC, 2016). A study made by Eurostat (2017) has shown that "68 % of Internet users in the EU shopped online in 2017". More than 80% of the people in countries such as Britain, Sweden,

Denmark or Germany used the Internet to buy goods or services. However, in Portugal, Italy and Greece the scenario is slightly different: for example, only 34% of the Portuguese customers used the Internet as a purchase channel in the last 12 months.

Regarding revenues per industry, in 2018 the largest e-commerce segment in Portugal will be the “Fashion” industry with an expected market volume of around US \$921M, which accounts for approximately 28% of the total revenues (US \$3,357M). The contribution of the “Fashion” industry for the total revenues will be followed by “Toys, Hobby & DIY” (27%), “Electronics and Media” (21%), “Furniture & Appliances” (16%) and “Food & Personal Care” (8%) (Statista, 2017e). Nevertheless, research made by TNS Infratest (Statista, 2015) with 3000 Portuguese respondents shows that flights and hotels are the most popular online shopping categories, followed by Clothing and Footwear. International platforms are the most used for Portuguese customers: for example, 50% made online purchases in Chinese websites. The top preferred websites by Portuguese customers are eBay, Amazon, Booking, AliExpress, and Google (Innovation, 2016). However, a study from SIBS (2016) includes the Portuguese e-commerce stores TAP, Continente, and Worten in this list.

Regarding payment methods in online transactions, 38% of Portuguese customers think that security is the most critical factor at the moment of deciding the best way to pay. Payments with Multibanco service (53%), MB NET (33%) and credit card (26%) are the most used methods, while PayPal (12%) and prepaid cards (5%) are the least used (SIBS, 2016).

Taking this information into account, one can conclude that Portuguese customers still feel more comfortable buying physically in the store rather than online shopping, when compared with the average Europeans. Some of the reasons might be that customers are still not 100% comfortable with technology, not aware of the advantages of buying online, or simply do not trust the purchasing process. When thinking about a mattress, it is a product that can be sold either offline or online, like many other products. In strategy, a mattress can be classified as

an “experience good” because “consumers cannot easily compare product characteristics and value information from others”. Instead, “consumers do learn about quality after purchasing and using the product” (Besanko et al., 2013). It is not a relatively cheap good, yet indispensable. There are many types of mattresses, and sometimes it isn’t easy to perceive the features of a mattress just by reading the information about the product: some people want to touch it and try it before buying. Therefore, it is reasonable to wonder to what extent does the profile of the Portuguese customer regarding online purchase may affect the sales of a mattress e-company.

Advantages of CRM practices

Previous research showed that companies are more aware of the importance of Customer Relationship Management (CRM) and make an effort to implement it in their daily activities (Abbot, Stone, and Buttle, 2001). Nevertheless, there are still opportunities for further enhancements. The same authors pointed out that the expansion of Internet channels would increase the amount of data collected by the companies, and nowadays many opinions are aligned with this identified trend in the study. For instance, Pombriant (2017) highlights the need for integrating analytics and machine learning in the e-commerce businesses, so companies can “become a CRM system”. Moreover, Pombriant argues that “with marketing tightly integrated with e-commerce, there's the opportunity to manage the relationship as much as the transaction”. The author brings the topic of automation of processes in the e-commerce businesses. More precisely, the automation of customer service activities and resulting cost saving incurred by e-commerce companies. With regards to advantages of CRM practices, recent research has provided evidence that effective CRM can improve the competitiveness of a company (Bojanowska, 2017). In this study, some of the factors that determined business competitiveness are the “use of communication networks”, the “strategies for products and services”, “financial stability” and “human and physical capital

use efficiency”. Bojanowska (2017) found out that most managers of large companies know what CRM is and have two primary goals regarding this topic: to build a long-term relationship with the customer and to provide a rapid response to the customer’s needs. For that, it is crucial to use CRM tools (software and special procedures) to achieve the desired results.

Certifiers and DECO PROTESTE

Disclose is the term used to describe the action of “informing consumers about a product’s benefit” (Besanko et al., 2013), and it can be done by the company itself or by external certifiers. For example, a mattress company can disclose the quality of the product itself or use a third-party to inform the customers. Better still, both things can be combined: a company can share that an external entity certifies its product. Usually, high costs are involved, especially if the certifier is officially recognized and so one of the most known entities from the concerned market.

The main advantage for the customers is that certifiers help them in the decision process (Besanko et al., 2013), especially “when information about a product is uncertain and asymmetrically distributed” (Deaton, 2004). Certifiers can influence the decision of the consumer, and so these external entities may have a meaningful impact on the profitability of a company (Besanko et al., 2013). Empirical studies in several industries have shown that certifiers can help to improve the business performance, including the wine-industry (Giacomarra et al., 2016) and the food-industry (Angulo and Gil, 2007). David Perry, Executive Editor of the American magazine “Furniture Today” published an article that shows the results of a study about the importance of a product award in the mattress industry (Perry, 2017). The results show that “those awards are judged very important or important by fully half of the consumers, with 33% saying they are neutral on the topic, and 17% saying those awards are not important or not important at all”. DECO PROTESTE is the Portuguese

Consumer Protection Association. It's a nonprofit organization founded in 1991 to defend the legitimate interests of consumers. The DECO PROTESTE logos were launched in 2016 (PROTESTE, 2018).

Importance of online trust seals

Several studies about trust in e-commerce have been conducted (Pavlou, 2002; Kim, Ferrin, and Raghav Rao, 2009; Fang et al. 2014). According to Özpolat and Jank (2015), trust “is critical in e-commerce because consumers perceive higher degrees of risk and uncertainty on the Internet”. Similarly, Chang, Cheung, and Tang (2013) explain that it is not possible to eliminate the risk entirely in an online shopping process, so it is crucial to implement trust strategies. The results of the study showed that 1) an Internet seal of approval logo, 2) return policy, and 3) reputation are mechanisms that increase trust in e-commerce businesses.

E-commerce businesses that want to display an Internet seal of approval logo are subjected to auditing activities by approval programs to ensure that customers can trust on the privacy of their personal information. Moreover, a registration fee is paid by the company that applies to the logo (Miyazaki and Krishnamurthy, 2002). Regarding the return policy, Chang, Cheung, and Tang (2013) found out that it should not be used as an isolated strategy, and its effectiveness depends on the stage of the business development: “if a new online shop is established by a reputable operator of a physical store, having a good return policy will increase the trust of its customers and encourage them to shop online”. Moreover, other mechanisms can be used to overcome the lack of confidence associated with the personal information provided by the customer to the online seller. For instance, according to Preibusch et al. (2016), by using a payment provider, instead of processing card details information, e-commerce shops can increase conversion rates. However, this trust enhancer technique only works when the seller is less trustworthy than the payment provider, meaning that reputable websites do not benefit, in terms of trust, from the payment provider (Preibusch

et al., 2016). A study from Özpolat and Jank (2015) provides evidence that small e-commerce retailers benefit more from showing the trust seals on the webpage when compared with larger retailers, and the example of Amazon is used to illustrate this finding. Moreover, the research suggests that the trust seal should be physically displayed where “the final risk assessment is made”: the place where customers start filling personal information after adding the products to the shopping cart. Finally, the same authors concluded that not more than two seals should be used, since customers “may feel confused by the presence of many seals which would then lead to an abandoning of carts” (Özpolat and Jank, 2015).

The media print channel in Portugal

Besides online ads, there are other types of channels that can be used to advertise a brand, such as print media activities. According to INE (2017), newspapers, magazines and another type of publications registered a loss of 28% in total distribution in Portugal, when compared with the previous year. Additionally, the number of copies sold declined 17.6%.

The measure Cost per Thousand (CPM) can be used to compare the cost efficiency to publish in two different magazines, for example (Govoni, 2004). According to the Dictionary of Marketing Communications (2004), CPM is “the cost of reaching 1,000 households or individuals in a media vehicle’s audience”. The same source explains that CPM can be calculated by dividing the cost of advertising by the number of the audience of the target reached, and multiplying the final value by 1,000. The magazine with the lowest CPM is the most cost-efficient investment, and so should be preferred (Bush, Seidenspinner, and Unger, 2007). The average CPM for magazine advertising ranges between \$8 and \$20 (Grunert, 2018).

In the print media, it is essential to distinguish between circulation and impressions. Circulation is the “number of copies of the publication that are distributed, on average, in its normal distribution period”, and impressions consist of “the total number of audience

exposures, including duplication, to all media vehicles in a complete media schedule, with one exposure equaling one impression” (Govoni, 2004). Normally, the number of impressions is larger than circulation because there is always the possibility that some of the readers did not buy the magazine, called “pass-along” readers.

Some authors, such as Motes and Woodside (1984) argue that the print media selection process should take into account several criteria. Shaughnessy (2016) wrote an article published in Harvard Business Review which highlights that what companies should understand is whether the impressions are effective or not. The author states that businesses should manage the cost of the advertisement campaign “based on real impressions and business outcomes, not poor quality disguised as low cost”.

Competitive analysis of the mattress industry with focus on Portugal

According to a McKinsey report (Goldman, 2017), the sleeping industry is growing because consumers are more aware of the importance of a good sleep experience to the extent that many diseases are related with inefficient rest nights. This creates different opportunities for a variety of businesses, including the ones responsible for the “Ambience Optimization”: temperature control, bedroom furniture, lightning, and others. When it comes to the mattress industry, a segment that belongs to “bedroom furniture” business, different key drivers can be identified, such as the increasing health concerns, technology progresses, population growth and demand for quality sleep (Reciprocus, 2016). The intensity of those drivers varies according to the country or region that is under consideration: for example, it is expected higher population growth in Asian countries when compared with Europe (Statista, 2017a).

Currently, the European market leaders as exporters of mattresses are Poland, Germany, Belgium and Denmark (Reciprocus, 2016), and revenues from bedroom furniture are

expected to grow from 2018 until 2021, the year in which it will reach US \$65,848M, with an average increase of 2.3% per year (Statista, 2017c).

Two types of mattresses can be distinguished: the traditional mattress, sold with the original size, and the most recent concept: the “bed-in-a-box” mattress, common in the US and more recently in Europe. The process of transporting a traditional mattress is a logistical challenge. The concept “bed-in-a-box” uses compression processes to reduce the size of the mattress. Once opened, the mattress can never be squeezed back in again. The benefits are clear: easier and cheaper transportation. As several e-commerce startups emerged from the sleeping industry, the new trend “bed-in-a-box” appears to be a good solution for online retailers (Margolis, 2016). Examples of this are the UK companies Simba and Eve, the French company Tediber, the German company Emma Matratze, and the Portuguese company Koala Rest. However, there are different opinions in the market regarding the potential of the concept “bed-in-a-box”. For example, Scott Thompson, CEO of Tempur Sealy, self-proclaimed as “the world's largest bedding provider” company, states that “only a limited number of consumers will choose that channel (e-commerce) for the purchase of their mattress. The purchase decision will always be heavily influenced by the need to feel the product before buying. We believe this will continue to be the case” (Horowitz, 2017).

Five Forces: The mattress industry in Portugal

To further analyze the profitability of the mattress industry and the rivalry in Portugal, one must perform a Porter's Fives Forces Analysis.

Threat of new entrants: We can distinguish between 2 entrants: a) the retailers and b) the manufactures.

- a) Since the large retailers in the market can charge lower prices, it is harder for new entrants to compete. Moreover, it requires high capital for branding and advertisement for a new

entrant to compete with such large retailers. On the other hand, low switching costs for buyers makes it less challenging for new entrants to compete with the retailers already established in the market. Finally, legal barriers to new retail entrants are low due to little regulation.

- b) Regarding manufacture entrants, the entry barriers are on the medium spectrum due to the considerable use of patents in the industry. For example, Pikolin Group, the market leader in Spain, Portugal, and France, has a significant number of registered patents (Pikolin, 2016). Moreover, substantial investments need to be considered for the manufacture operations, not only monetary resources for infrastructures but also know-how, especially for the production of high-quality mattresses that use cutting-edge technology.

Revenues in the bed furniture industry are expected to grow in Portugal from \$578M in 2018 to \$625M in 2021. Additionally, in the furniture segment, 17% of total revenue will be generated through online sales by 2021, 5% more than in 2018 (Statista 2017b, 2017d). This expected growth over the years makes the bed furniture industry (mattresses included) attractive for new entrants, both retailers, and manufacturers. Overall, I believe that there is a medium threat of new entrants to this market, for both the retailers and the manufacturers.

Rivalry: A small number of retailers have a strong and well-established name in Portugal, such as Ikea, Conforama, El Corte Inglés, Continente and Jumbo, and account for a significant share of total market revenues. These large corporations benefit from economies of scale and sell their own mattresses, and in some cases also act as distributors for other brands. They have higher buying power when negotiating with suppliers when compared with the smaller mattress retailers. Thus, the large retailers can compete more intensely on price. There are also many other small retailers in the Portuguese market, only focused on the mattress business and that can provide the customer with more detailed information regarding the technical features of the product. Nevertheless, larger retailers have stronger distribution

channels than small retailers and might have a logistic advantage. Having said that, the internal rivalry is moderate because there is intense competition within the market, especially between the more prominent retailers in Portugal, but it is not growing: the short-term tendency is to increase the number of companies that sell mattresses online and compete on this channel (Velho, 2017).

Supplier Power: Emma does not require the service of other Portuguese suppliers because the company already has agreements with strategic German suppliers, and therefore mattresses are and will be produced in Germany and then shipped to Portugal. Concerning suppliers' power level for the Portuguese market, their power level is moderate because there are different producers, such as Aquinos S.A., J.J. Louro Pereira S.A., Molaflex, Pikolin, Lusocolchão and others (BDO, 2016). Most of them are either from Portugal or Spain. The strongest supplier for the Portuguese retailers is Aquinos S.A., which is able to produce up to 1 million mattresses a year and supplies mattresses to big retailers such as Ikea, Conforama and El Corte Inglés (Aquinos, 2016).

Buyer Power: In regard to the buyer power, retailers sell their products directly to the consumer, whom can easily switch to another brand if it has a better price, quality or a specific feature, such as a new technology or material used in the production of the mattress. On the other hand, a mattress has an inelastic demand pattern because it is a daily necessity, meaning that customers might have to make an effort to purchase such a good. Moreover, brand loyalty might increase the cost of efficiently switching to another brand. Overall, buyer power is assessed as moderate.

Threat of Substitutes: It can be considered low because a mattress is an essential product: it is a common sense in the western culture that everyone needs a mattress to sleep in. Nevertheless, it should be taken into account that mattresses are considered durable goods and some people buy them as second-hand goods. Portuguese customers still see the mattress as

“part of the furniture” and believe that it should last a lifetime because some manufacturers assure the quality of the product over long periods – sometimes 25 years (Expresso, 2016).

Internal and external environment of Emma Colchão

SWOT Analysis: focused on the Portuguese e-commerce market

Strengths (S) S1) Flexibility and agility to adapt to customer’s needs due to the startup nature; S2) Broad innovation vision and strong R&D department; S3) Focused on analytical data to support decisions; S4) Awarded product (certified) – DECO PROTESTE logo; S5) Expertise from top managers; S6) Broad market: Emma mattress was developed to adapt to everyone; S7) Vertical integration of the supplier: tight product control (better quality of the product) and reduction of costs; S8) Good service: free and fast delivery directly to the door and a talented customer service team.

Weaknesses (W) W1) Dependent on the performance of distribution companies; W2) Unable to offer a live technical explanation of the product and to apply live sales techniques; W3) Customers cannot try the product before payment (there is not a physical store available in Portugal); W4) Customers cannot pay in installments on the website; W5) The service provided by Emma does not include the pick-up of the old mattress.

Opportunities (O) O1) The online shopping will grow in Portugal, as well as revenues from the furniture segment; O2) Large Portuguese retailers are interested in trade high-quality products; O3) The number of transportation companies will increase due to the increasing e-commerce trend; O4) Big retailers will start selling more via online (e-commerce trend); O5) Internet reduces search costs.

Threats (T) T1) Competition from bigger players; T2) Increasing demands from consumers (customers want the best product with the lowest price); T3) Technologic and fast-changing industry (new materials are discovered and patented), need for a constant innovation; T4)

Portuguese customers are not used to buying mattresses online, they prefer to see the mattress before.

Methodology

The methodology section includes three distinct activities. The first one was to understand which is the best trust logo for the Portuguese e-commerce page, based on secondary data collection. The second one, concludes about advertising Emma Colchão at Magazine X, also supported by secondary data. Finally, a survey to the Portuguese community about buying a mattress online. I collected qualitative data derived from three primary sources of CRM: call service with customers, e-mails and chat via the e-commerce page (zendesk software). The company uses other sophisticated tools to analyze the consumer behavior, such as Google Analytics. However, the survey is only based on the information gathered from the three sources mentioned before. By sharing conversations with potential or actual buyers, I was able to identify problems and concerns about the Portuguese customers: logistic issues regarding delivery, worries regarding payment methods, trust issues or other types of requirements demanded by consumers. Moreover, it allowed me to understand the different buyer profiles in Portugal. By using the knowledge and feedback acquired in these CRM activities, I created a survey to gather useful information for Emma Colchão regarding the Portuguese customers and the online mattress market. This methodology aimed to collect primary data to support Emma's short-term and long-term actions.

1. Which is the best trust logo for the Portuguese e-commerce page?

One of the tasks of my internship at Emma Colchão was to identify a trust logo for the Portuguese page and suggest a location for it on the website.

According to the Ecommerce Europe (2018), the Ecommerce Europe trustmark “stimulates cross-border e-commerce through better protection for consumers and merchants by establishing one European set of rules and by ensuring clear communication of these rules”.

Considering that to request the Ecommerce Europe trustmark entities should be accredited before by the Portuguese CONFIO trustmark, I identified CONFIO as the best trust logo for Emma Colchão. After being a CONFIO member, e-commerce companies do not need to meet any additional requirements to obtain the Ecommerce Europe trustmark (Confio, 2018b). This direct access is especially important in the case of Emma Colchão because the transaction of the product occurs between two European countries: Germany and Portugal. Other reasons for choosing CONFIO are that it is a unique national initiative and it is an accreditation programme that results from a partnership between reputable Portuguese entities: ACEPI, DNS.PT and DECO (Confio, 2018a).

The downside is that, to date, the number of the CONFIO trustmark members is low (only 22 members), probably due to the fact the logo is relatively recent (mid-2016), and therefore not popular enough. Consequently, it is not expected a strong trust enhancement and a substantial boost in the conversion rates just by displaying the logo on the webpage. Nevertheless, websites such as La Redoute and Modalfa Online, apparel sellers, already have the CONFIO trustmark displayed on their sites, even though both online shops belong to reputable brands in Portugal.

The website Emma Colchão was audited by CONFIO after the payment of a fee, and the entity reported the non-conformities. In this case, a cookie banner was missing to ensure that Emma Colchão is complying with the EU cookie law. The required changes were implemented, and after official approval, the logo was displayed in the footer of the website and, as recommended in the literature, on the checkout page, where “the final risk assessment is made” (Özpolat and Jank, 2015).

2. Should we advertise Emma Colchão at Magazine X?

Three advantages can be identified when it comes to making a partnership with magazine X:

1) the ad would be available to the target audience throughout the whole year, 2) the ad would

target customers that most likely are searching for furniture products for the house, and 3) the chance to target customers that do not search online is higher. Since Emma is a relatively new brand in Portugal, it is essential to create awareness by advertising Emma's brand image in the market, by using online and offline strategies. Especially in the print media channel, such as magazines, we can probably target consumers that are still not used to search for products on the Internet. Therefore, it is crucial to understand if the potential change in the conversion rate is worth the investment in this type of advertisement. I was responsible for analyzing an offer to publish an article about Emma in a magazine, which will be denominated X due to confidentiality reasons. The article would potentially cover content related to the product, DECO logo and the story of Emma.

X is an annual Portuguese magazine, focused on decoration trends of the year, including furniture. To decide whether or not the investment was justified, the CPM metric was used, as well as research about the circulation registered in 2017 for comparable Portuguese magazines. According to data available in the APCT website, the Portuguese association that controls the circulation and penetration of the different publishers in the Portuguese market, two magazines (Y and Z) are listed in the decoration type of magazine, and magazine X is not included in the group (APCT, 2018).

I was informed that magazine X would distribute 20,000 copies. To calculate the average number of magazines that would be sold, I estimated it by using the data from comparable magazines (see Table 1 in Appendix B). Additionally, it was assumed a “pass-along” rate of 2.3 readers, based on a survey made by the Technical Image Press Association (TIPA, 2017). The CPM was computed based on the impressions. The average gap between the distribution and number of copies sold (circulation) of magazines Y and Z (72,5%) was used to calculate the estimated circulation. Finally, the “pass-along” rate of 2.3 readers allowed obtaining the values for CPM for the different sizes of the ad (double page, 1 page or ½ page). Table 2 in

Appendix B provides an overview of the CPM obtained in each ad size. Considering that CPM reflects the cost per thousand estimated readers of the ad, to reach 1,000 readers by publishing a one-page ad in magazine X, Emma Colchão would pay around 22.5 €. It is important to take into account that the actual distribution number (20,000 copies) would most likely be lower than the circulation number, in so far as some of the magazines may not be sold. Moreover, other types of marketing activities, such regular presence on social media and partnerships with influencers are cheaper (or even free) and may have similar results in terms of conversion rates. Considering that $\frac{1}{2}$ page would have low or few impacts because not only large images could not be used, but the content would be limited as well, the resulted CPM values seem to be quite high, when compared with the average for magazines: between \$8 and \$20 (Grunert, 2018). Finally, we decided not to invest in magazine X. However, other criteria should be used to support the decision, according to the literature (Motes and Woodside, 1984).

3. Survey to the Portuguese customers about buying a mattress online

3.1 Sample description

One hundred and nineteen participants took part in this study. Only data from participants older than 18 was considered, so three observations were removed. Thus, one hundred and sixteen participants of which thirty-eight are men, seventy-seven are women and one person who preferred not to mention the gender remained for analysis (see Appendix C). Participation in the survey was voluntary, and participants were assured the condition of anonymity. The survey consisted of several questions. The first two questions were related to the demographic profile. The following questions addressed historical behavior about buying a mattress, purchase intention and preferences associated with the online experience. Some questions follow a Likert scale type of answer with five ratings, in which 1 corresponds to “Strongly Disagree” and 5 to “Strongly Agree”. The survey was created on Google Forms

platform, and the data was analyzed in SPSS (Statistical Package for the Social Sciences) version 24 and Excel version 15.39. The survey was launched on 22nd March 2018 and closed on 10th April 2018.

3.2 Results from the survey

From the participants, 73% already bought a mattress at some point in their life. Within this group, the majority purchased the last mattress in less than two years ago or between two and five years. Moreover, 81% bought it in a physical store, 15 % online and 4% by catalog. No one from the group used telesales as the buying channel to acquire a mattress. Less than half of the respondents know at least one website that sells mattresses (45%), from which approximately 10% knows or has heard about Emma. The most mentioned website is Ikea, with 48% of the respondents indicating it.

Regarding the money that customers are willing to spend on a mattress, we calculated the median in the Likert scale for each price category. The median answer for the price ranging up to 150 € and between 150 € and 350 € is “Agree”, and between 350 € and 700 € is “Neither agree nor disagree”. Prices up to 150 € or ranging between 150 € and 350 € are the categories that registered a higher number of answers towards the “Totally Agree” direction in the Likert scale, whose average opinion is positive and follows between the categories “Neither agree nor disagree” and “Agree”. On the other hand, the answer to the question “I am willing to buy a mattress between 350 € and 700 €” falls on average between “Disagree” and “Neither agree nor disagree”.

The Likert Scale questions were addressed with Chi-Square tests for homogeneity to compare the distribution of pairs of variables. We decided to conduct three tests (**Test 1**, **Test 2** and **Test 3**). In all of them, the null hypothesis (H_0) is that the population follows the same distribution, and the alternative hypothesis (H_1) otherwise. Thus, H_0 was formulated for **Test 1**: “Portuguese customers are willing to pay the same amount of money for an above-average

price mattress, regardless whether it is or not an awarded product by DECO PROTESTE.”

The aim of **Test 2** was to understand if the willingness to buy a mattress online is the same as in other channels if transportation of the product is free of charge. Finally, with **Test 3**, we wanted to understand if the willingness to buy a mattress online is the same as in a physical store if the mattress is the same and comparably cheaper. For Test 1 and Test 2 we fail to reject the null hypotheses, finding no evidence supporting that: 1) the awarded product changes the willingness to pay and 2) if transportation is free, customers are more willing to buy online. However, there is strong evidence to reject H_0 from **Test 3** ($p\text{-value} < 0.05$) at 5% significance level. Therefore, by using the Chi-Square test for homogeneity, we conclude that the price does have a significant effect on the purchase intention because customers are willing to buy a mattress online if the product is cheaper (see Appendix D). Alternatively, we decided to use another method - the sign test - to test the effect of the award in the willingness to buy the mattress online. The Chi-Square test only rejects H_0 when there are substantial differences between the observed and expected values. The advantage of the sign test compared with the Chi-Square test for homogeneity is that it detects if there is a positive or negative shift in the opinion. The sign test is used for paired samples, meaning that each subject is measured twice, so it is useful to understand if there is a positive change in the answers (towards the “Totally Agree” direction) when the mattress is awarded by DECO PROTESTE. The sign test can be used to analyze categorical data and requires no assumption about the distribution of the differences between the means of the two populations (Anderson, Sweeney, and Williams, 2011). In this test, the variables are converted into plus or minus signs (or ties), and we test whether the plus sign differs from the minus sign or not. The null hypothesis is $H_0: p = 0.50$ and the alternative hypothesis is $H_a: p \neq 0.50$. If the $p\text{-value}$ of the sign test is lower than the level of significance, H_0 is rejected, and so the two dependent sample means will be different (Solutions, 2018). After running the sign test in SPSS, we

obtained a $p\text{-value} = 0.015 < 0.050$, and identified 18 negative differences against 37 positive differences. This suggests that there is a positive change in the answers (towards the “Totally Agree” direction) when the mattress is awarded by DECO PROTESTE (see Appendix E).

To understand if the variable age influences the factor that would prevent a Portuguese customer from buying a mattress online, we conducted a simple correspondence analysis (CA). This method is non-parametric and allows to analyze the association between two or more categorical variables. A correspondence map is generated in SPSS, which helps to visualize the relationships between the different categories (Starkweather and Herrington, 2018). The CA uses the measure total Inertia to understand if one can use trust in the data to offer conclusions. Inertia is defined as “the total Pearson Chi-Square for a two-way frequency table divided by the total sum of all observations in the table” (Statsoft, 2018). After running the model, the absolute frequency table showed more than 20% of the cells counting less than 5, which leads to invalid results (see Appendix F). For example, no one aged [18-25] or 50+ identified “Shipping costs might increase the price” as the most relevant factor that would prevent the person from buying a mattress online. One way to get around this problem is to group categories and rerun the CA test. As such, we merged the age groups [18-25] and [26-36], and comprised the factors “Shipp_Costs”, “Lost_Order” and “Reception” in only one category called “Other_Reasons”. The total inertia of this new model is 0.067, and since the $p\text{-value}$ is approximately 0.10, the total inertia is different from zero, if we consider a 10% significance level (see Appendix G). Hence, the CA technique can be used to analyze these data (Starkweather and Herrington, 2018). By taking a closer look at the summary table derived from the CA in SPSS, a solution with one dimension captures about 99% of the total inertia. The correspondence map generated allows taking some general conclusions. We could say that people older than 50+ appear to be afraid that the mattress will be lost when buying online or worried that they might not manage the reception of the product. Also, the most

significant concern for customers aged [18-36] when purchasing a mattress online seems to be the impossibility to try before the purchase. The lack of trust regarding payment appears to concern more significantly the customers belonging age group [37-50]. However, it is not the critical factor that would prevent them from buying a mattress online.

Taking into account that the previous results of the CA test are at the threshold of being considered significant, we decided to run a Chi-Square test for association with only two categories for the variable factor: “Cannot_Try”, and the remaining factors merged in the category “Other_Reasons”. The reason is that more than 50% of the participants chose “Cannot_Try” as the most relevant factor. All the four categories of age were considered for analysis. In this case, we would not be able to run a CA because one of the variables (factor) has only two categories. The Cramer's V is a measure used to conclude about the strength of the association between two nominal variables, regardless of the number of categories (Toronto, 2018). By analyzing the cross-tabulation table generated in SPSS, we see that the most significant concern for customers aged [18-25] and [26-36] when purchasing a mattress online is the impossibility to try before the purchase, which is aligned with the result found in the CA (see Appendix H). Also, the Cramer's V value of 0.307 indicates that there is a very strong relationship between the variables “Age” and “Factors” (Toronto, 2018). Concluding, for younger generations, the impossibility to try the mattress before buying is the factor that most affects the decision to purchase online. In contrast, for older generations, other factors are more significant, such as the lack of trust in payment and manage the reception of the product.

Respondents were addressed to rate several factors about the degree of importance in the decision process of buying a mattress, regardless of the channel. The more frequent factor classified as “Very important” was “Warranty” (37%), followed by “Possibility to test at home without commitment” (33%). On the other hand, “Speed of delivery” was classified as

“Very important” by only 10% of the respondents. It was also asked the respondents to rate how important would be to include the collection of the old mattress in the service if they would buy a mattress online with delivery at the door. Only 24% of the respondents rated the collection service as “Not at all important” or “Slightly important”.

Finally, the question about which payment method(s) would the buyer prefer to buy a mattress online displayed that half of the respondents included Multibanco MB (with reference generated online) as the preferable option(s). The second preferred method is the collection payment option (34%), followed by bank transfer and credit card (both with 26%). The less preferred methods are PayPal (24%) and the possibility of paying with interest-free installments (22%). These results are aligned with the literature review (SIBS, 2016). Taking into account that the methods of payment currently available at Emma Colchão do not include the preferred method by buyers, Emma should consider offering the Multibanco MB option in the e-commerce page.

3.3 Limitations of the survey

This survey (see Appendix I) has some limitations that should be considered when interpreting its findings. A general limitation is that the survey was shared online, meaning that we are inevitably targeting the customers in the wrong way: for example, most of the respondents are aged [18-26], and maybe those are the ones who have never bought a mattress. Regarding the sample (116 respondents), it would be preferable to enlarge its size to reduce uncertainty in the conclusions drawn. The Chi-Square test for homogeneity is a test used to understand whether several populations have a similar distribution. In this analysis, we are assuming that populations are different. However, the population is the same. The same respondents are addressing different questions, whose responses may be dependent on one another. Regarding the sign test, it only examines if the values of the sample are above or below the mean, it does not analyze the absolute difference between the pair of values.

Another weakness of the analysis is the visual interpretation of the correspondence map derived from the CA. It is a subjective analysis and does not provide much quantitative data to support the conclusions.

Conclusion and general recommendations

Emma Colchão is a very recent brand in Portugal, so it should take advantage of an innovative and awarded product. Although the online market will increase in Portugal, customers still prefer to buy a mattress in the store due to several reasons that may vary with the profile of the buyer. Quality recognition of products from a new brand still requires offline support to establish the online sales channel and allow growth in the Portuguese market, especially when the physical experience of the product is essential, such as a mattress. Therefore, Emma should also “go offline” and make partnerships with reputable retailers to increase the customer’s reach. Retailers are able to provide technical support to customers, and customers can physically try the mattress. Emma should take advantage of the winning-award to overcome the competition and increase sales, meet the needs of consumers and adapt the model if necessary. Simultaneously, use a defined strategy to boost trust in the Portuguese e-commerce page and educate the online behavior of the customer, due to cultural behavior towards the online purchase of a mattress.

General limitations and future research

Due to space and time constraints, I was not able to make a detailed analysis about the target retailers during the Directed Research Internship, especially regarding the strategic fit between Emma and each of the potential retailers identified. Several criteria should be taken into consideration in this analysis, such as location, number of stores, reputation, revenues and, most important, strategic fit and alignment of goals.

References

- Abbot, Julie, Merlin Stone, and Francis Buttle.** 2001. "Customer Relationship Management in Practice - A Qualitative Study." *Journal of Database Marketing* 9 (1): 24–34.
- ACEPI/IDC.** 2016. "Estudo Economia Digital E Da Sociedade Digital Em Portugal."
- Anderson, David R., Dennis J. Sweeney, and Thomas A. Williams.** 2011. *Statistics for Business and Economics*. 11th ed. USA: South-Western Cengage Learning.
- Angulo, Ana M., and José M. Gil.** 2007. "Risk Perception and Consumer Willingness to Pay for Certified Beef in Spain." *Food Quality and Preference* 18 (8): 1106–17. doi:10.1016/j.foodqual.2007.05.008.
- APCT.** 2018. "Decoração 2017." Accessed March 3. http://www.apct.pt/Analise_simples.php.
- Aquinos.** 2016. "Aquinos: Conheça a Nossa História..." Accessed February 25. <https://www.aquinosgroup.com/blank-27>.
- BDO.** 2016. "Fabrico de Mobiliário E de Colchões - Análise Setorial." Lisboa.
- Besanko, David, David Dranove, Mark Shanley, and Scott Schaefer.** 2013. *Economics of Strategy*. 6th ed. USA: Wiley.
- Bojanowska, Agnieszka.** 2017. "Improving the Competitiveness of Enterprises through Effective Customer Relationship Management" 16 (4). doi:10.12775/EiP.2017.025.Improving.
- Bush, Rainer, Margarete Seidenspinner, and Fritz Unger.** 2007. *Marketing Communication Policies*. Heidelberg: Springer.
- Chang, Man Kit, Waiman Cheung, and Mincong Tang.** 2013. "Building Trust Online: Interactions among Trust Building Mechanisms." *Information & Management* 50 (7). Elsevier B.V.: 439–45. doi:10.1016/j.im.2013.06.003.
- Confio.** 2018a. "About Us." Accessed March 20. <https://www.confio.pt/en/confio-pt/about-us/>.
- . 2018b. "Ecommerce Europe Trustmark - Information." Accessed March 20. <https://www.confio.pt/en/confio-pt/european-trustmark/>.
- Deaton, B. James.** 2004. "A Theoretical Framework for Examining the Role of Third-Party Certifiers." *Food Control* 15 (8): 615–19. doi:10.1016/j.foodcont.2003.09.007.
- Europe, Ecommerce.** 2018. "Ecommerce Europe Trustmark." Accessed March 23. <https://www.ecommerce-europe.eu/ecommerce-europe-trustmark/>.
- Eurostat.** 2017. "E-Commerce Statistics for Individuals." Accessed February 16. http://ec.europa.eu/eurostat/statistics-explained/index.php/E-commerce_statistics_for_individuals.
- Expresso.** 2016. "Luzes, Cama, Colchão." Accessed March 17. <http://expresso.sapo.pt/sociedade/2016-09-11-Luzes-cama-colchao#gs.WNOBMaA>.
- Fang, Yulin, Israr Qureshi, Heshan Sun, Patrick McCole, Elaine Ramsey, and Kai H. Lim.** 2014. "Trust, Satisfaction, and Online Repurchase Intention: The Moderating Role of Perceived Effectiveness of E-Commerce Institutional Mechanisms." *MIS Quarterly* 38 (2): 407–27. doi:10.25300/MISQ/2014/38.2.04.
- Giacomarra, Marcella, Antonino Galati, Maria Crescimanno, and Salvatore Tinervia.** 2016. "The Integration of Quality and Safety Concerns in the Wine Industry: The Role of Third-Party Voluntary Certifications." *Journal of Cleaner Production* 112 (1). Elsevier Ltd: 267–74. doi:10.1016/j.jclepro.2015.09.026.
- Goldman, Dan.** 2017. "Investing in the Growing Sleep-Health Economy."
- Govoni, Norman.** 2004. *Dictionary of Marketing Communications*. USA: Sage Publications, Inc.

- Grunert, Jeanne.** 2018. "What Is a Typical CPM?" Accessed March 7. <http://smallbusiness.chron.com/typical-cpm-74763.html>.
- Horowitz, Dean.** 2017. "Are Sales of Bed-in-a-Box Mattresses Hurting Sales of Better Beds?" *Furniture/Today*.
- INE.** 2017. "Estatísticas Da Cultura: 2016 (Destaque - Informação À Comunicação Social)."
- Innovation, Digital.** 2016. "Apenas 30 % Dos Portugueses Fazem Compras Online." Accessed February 10. <http://www.digital-innovation.pt/news/transformacao-digital/apenas-30-dos-portugueses-fazem-compras-online>.
- Kim, Dan J., Donald L. Ferrin, and H. Raghav Rao.** 2009. "Trust and Satisfaction, Two Stepping Stones for Successful E-Commerce Relationships: A Longitudinal Exploration." *Information Systems Research* 20 (2): 237–57. doi:10.1287/isre.1080.0188.
- Margolis, Jonathan.** 2016. "Mattress Wars : Rude Awakening for a Sleepy Market." *The Financial Times*. Accessed March 27. <https://www.ft.com/content/85c7e526-8179-11e6-bc52-0c7211ef3198>.
- Miyazaki, Anthony D, and Sandeep Krishnamurthy.** 2002. "Internet Seals of Approval: Effects on Online Privacy Policies and Consumer Perceptions" 36 (1): 28–49.
- Motes, William H, and Arch G Woodside.** 1984. "Bottom Line Research for Advertising Media Decisions." *Journal of the Academy of Marketing Science* 12 (3): 113–22. doi:10.1007/BF02739323.
- Özpolat, Koray, and Wolfgang Jank.** 2015. "Getting the Most out of Third Party Trust Seals: An Empirical Analysis." *Decision Support Systems* 73. Elsevier B.V.: 47–56. doi:10.1016/j.dss.2015.02.016.
- Pavlou, Paul A.** 2002. "Technology in Electronic Markets : Price Premiums and Buyer." *MIS Quarterly* 26 (3): 243–68.
- Perry, David.** 2017. "Boosting RSA Skills: Helping RSAs Be More Confident." *Furniture/Today*. Accessed March 2. <http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=120802593&site=eds-live>.
- Pikolin, Group.** 2016. "Pesquisa E Inovação." Accessed March 7. <http://www.grupopikolin.com/pt/pesquisa-inovacao/p-d-i>.
- Pombriant, Denis.** 2017. "The Next Big Thing in CRM: E-Commerce." *Information Today Inc.*, July.
- Preibusch, Sören, Thomas Peetz, Gunes Acar, and Bettina Berendt.** 2016. "Shopping for Privacy: Purchase Details Leaked to PayPal." *Electronic Commerce Research and Applications* 15: 52–64. doi:10.1016/j.elerap.2015.11.004.
- PROTESTE, DECO.** 2018. "DECO PROTESTE - Quem Somos, O Que Fazemos." Accessed March 29. <https://www.deco.proteste.pt/info/os-nossos-servicos/a-deco-proteste>.
- Reciprocus.** 2016. "Project: Mattress Market." http://reciprocus.com/sites/default/files/2016_Mattress_Market_Snapshot.pdf.
- Shaughnessy, Laura O.** 2016. "The High Price of Low-Cost CPMs." *Harvard Business Review*, 2–5.
- SIBS.** 2016. "SIBS Market Report: Comércio Digital 2016." Lisboa. Accessed February 15. https://www.sibs.pt/wp-content/uploads/sites/5/2017/02/SIBS-MARKET-REPORT_2016_PDF-INTERACTIVO_20170222.pdf.
- Solutions, Statistics.** 2018. "McNemar, Marginal Homogeneity, Sign, Wilcoxon Tests." Accessed April 15. <http://www.statisticssolutions.com/mcnemar-marginal-homogeneity-sign-wilcoxon-tests/>.
- Starkweather, Jon, and Richard Herrington.** 2018. "Research and Statistical Support - Return to the SPSS Short Course (Module 9): Correspondence Analysis." Accessed

- April 20. [http://bayes.acs.unt.edu:8083/BayesContent/class/Jon/SPSS_SC/Module9/M9_Correspondence/SPSS M9 Correspondence1.htm](http://bayes.acs.unt.edu:8083/BayesContent/class/Jon/SPSS_SC/Module9/M9_Correspondence/SPSS_M9_Correspondence1.htm).
- Statista.** 2015. "Most Recently Online Purchased Product Categories in Portugal in 2015." Accessed February 23. <https://fesrvsd.fe.unl.pt:2351/statistics/348921/popular-online-purchases-categories-portugal/>.
- . 2017a. "Forecast of the World Population for 2100, by Continent." Accessed February 15. <https://fesrvsd.fe.unl.pt:2351/statistics/272789/world-population-by-continent/>.
- . 2017b. "Furniture Market: Sales Channels in Percentage - Portugal." <https://www.statista.com/outlook/17000000/147/furniture/portugal#market-onlineRevenueShare>.
- . 2017c. "Revenue and Revenue Growth in the Furniture Market (Europe)." Accessed February 27. <https://fesrvsd.fe.unl.pt:2351/outlook/17000000/102/furniture/europe#market-revenue>.
- . 2017d. "Revenue in the Bedroom Furniture Segment in Portugal (2010-2021)." Accessed February 13. <https://fesrvsd.fe.unl.pt:2351/outlook/17020000/147/bedroom-furniture/portugal#market-revenue>.
- . 2017e. "Revenue in the 'eCommerce' market in Portugal per Industry (2016-2022)." Accessed February 13. <https://fesrvsd.fe.unl.pt:2351/outlook/243/147/ecommerce/portugal#market-revenue>.
- Statsoft.** 2018. "Inertia." Accessed April 26. <http://www.statsoft.com/textbook/statistics-glossary/i#Inertia>.
- TIPA.** 2017. "Technical Image Press Association: 2017 - Magazine Readership Survey." Accessed March 13. <http://www.tipa.com/tipa-news-it/tipa-2017-magazine-readership-survey-en>.
- Toronto, University of.** 2018. "Computing in the Humanities and Social Sciences - Crosstabulation with Nominal Variables."
- Velho, Marta.** 2017. "Startups de Olho No Sucesso Do Negócio Da Venda de Colchões." *Diário de Notícias*.

Appendix

Appendix A *VRINNO analysis of Emma Colchão. Valuable, Rare, Inimitable, Non-substitutable, Non-transactionable and Organizationally embedded. Source: own computation.*

	V	R	I	N _s	N _t	O	Reasonings
Core Resources of Emma Colchão							
<i>Innovation</i>	✓	✓	✓	✓	✓	✓	- Know-how about product development and focus on efficiency and quality of the processes
<i>IT System</i>	✓	✗	✗	✗	✗	✗	- IT System is considered a valuable resource
<i>Strategic partnerships</i>	✓	✓	✗	✗	✗	✓	- Strategic partnerships with suppliers, which allows a tight control in the quality of the products - Partnerships with international distribution companies that operate in the Portuguese market
<i>People management and values</i>	✓	✓	✓	✓	✓	✓	- The company has a high level of transparency among their employees - Everyone has a word independently of the status
<i>Reputation</i>	✓	✓	✓	✓	✓	✓	- Delivering products on time and quality (around 95% of the cases) for the Portuguese customers - Return policy: 100 nights trial – in Portugal, Emma Colchão is one of the few players in the market that offers such an extended period to try the mattress at home, without any risk incurred - Emma Colchão received the logo “Best of the Test” by DECO PROTESTE - Portuguese customers recognize the quality of the products. However, the brand is still not known in Portugal since it is quite recent - Emma is the best mattress in 6 European countries
<i>Agility</i>	✓	✓	✗	✗	✗	✓	- Emma can adapt very fast due to the startup environment
<i>Location</i>	✓	✓	✗	✓	✓	✓	- As Emmas’s headquarters and suppliers are located in Germany, this resource is organizationally embedded - German quality of the products assured
<i>Customer Relationship</i>	✓	✓	✗	✗	✗	✓	- The way Emma deals with customers is R, V, and O, but not I

Appendix B *Print Media - Should we advertise Emma Colchão at Magazine X?*

Table 1 *Gap between the distribution and circulation of magazines Y and Z (APCT, 2018).*

Magazine	A) Distribution	B) Circulation (sold)	Gap A-B	% Gap A-B
Y	22,500	17,088	5,412	76%
Z	137,150	95,276	41,874	69%

Table 2 *CPM computation assuming a “pass-along” rate of 2.3 readers. Total Price corresponds to the total price of the ad (paid only once).*

Size of the Ad	Total Price	Distribution (# copies)	Circulation (# copies sold)	Impressions	CPM (€)
Double page	950 €	20,000	14,500	33,350	28.5
1 page	750 €	20,000	14,500	33,350	22.5
½ page	500 €	20,000	14,500	33,350	15.0

Appendix C *Survey analysis – Descriptive Statistics of the sample. Computation in SPSS version 24.*

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	77	66.4	66.4	66.4
	Male	38	32.8	32.8	99.1
	Prefer not to say	1	.9	.9	100.0
	Total	116	100.0	100.0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18 - 25	25	21.6	21.6	21.6
	26 - 36	41	35.3	35.3	56.9
	37 - 50	31	26.7	26.7	83.6
	50+	19	16.4	16.4	100.0
	Total	116	100.0	100.0	

Gender * Age Cross-tabulation frequency table

		Count				
		Age				
		18 - 25	26 - 36	37 - 50	50+	Total
Gender	Female	17	25	21	14	77
	Male	7	16	10	5	38
	Prefer not to say	1	0	0	0	1
	Total	25	41	31	19	116

Appendix D Survey analysis – Homogeneity Tests (Chi-Square) and p-value computation.

Test 1 – Awarded Mattress (computation in Excel version 15.39)

Observed				Expected		
Likert S.	Without Award	With Award	Total	Likert S.	Without Award	With Award
1	23	22	45	1	22.5	22.5
2	31	24	55	2	27.5	27.5
3	27	22	49	3	24.5	24.5
4	25	33	58	4	29.0	29.0
5	10	15	25	5	12.5	12.5
Total	116	116	232			

(Obs-Exp) ² /Exp			Chi-Square	3.53
Likert S.	Without Award	With Award	p-value	0.47
1	0.01	0.01		
2	0.45	0.45		
3	0.26	0.26		
4	0.55	0.55		
5	0.50	0.50		

1: “Totally Disagree”
5: “Totally Agree”

Test 2 – Buy online if transportation is free (computation in Excel version 15.39)

Observed				Expected		
Likert S.	Buy online	If free Transp.	Total	Likert S.	Buy online	If free Transp.
1	26	20	46	1	23.0	23.0
2	27	22	49	2	24.5	24.5
3	13	21	34	3	17.0	17.0
4	32	28	60	4	30.0	30.0
5	18	25	43	5	21.5	21.5
Total	116	116	232			

(Obs-Exp) ² /Exp			Chi-Square	4.58
Likert S.	Buy online	If free Transp.	p-value	0.33
1	0.39	0.39		
2	0.26	0.26		
3	0.94	0.94		
4	0.13	0.13		
5	0.57	0.57		

1: “Totally Disagree”
5: “Totally Agree”

Test 3 – Buy online if the mattress is cheaper (*computation in Excel version 15.39*)

Observed				Expected		
Likert S.	Buy online	If cheaper	Total	Likert S.	Buy online	If cheaper
1	26	14	40	1	20.0	20.0
2	27	13	40	2	20.0	20.0
3	13	14	27	3	13.5	13.5
4	32	35	67	4	33.5	33.5
5	18	40	58	5	29.0	29.0
Total	116	116	232			

(Obs-Exp)^2/Exp			Chi-Square	17.02
Likert S.	Buy online	If cheaper	p-value	0.002
1	1.80	1.80		
2	2.45	2.45		
3	0.02	0.02		
4	0.07	0.07		
5	4.17	4.17		

1: “Totally Disagree”
5: “Totally Agree”

Appendix E *Survey analysis – Sign test to test the effect of the award in the willingness to buy the mattress online. Computation in SPSS version 24.*

Frequencies

		N	
With_Award VS Without_Award	Negative Differences ^a	18	a. With_Award < Without_Award
	Positive Differences ^b	37	b. With_Award > Without_Award
	Ties ^c	61	c. With_Award = Without_Award
	Total	116	

Test Statistics^d

		With_Award - Without_Award
	Z	-2.427
	Asymp. Sig. (2-tailed)	0.015

d. Sign Test

Appendix F *Survey analysis – Correspondence Analysis for the first test (invalid results).*
Computation in SPSS version 24.

Correspondence Table

Age	Factor					Active Margin
	Lack_Trust	Cannot_Try	Shipp_Costs	Lost_Order	Reception	
18-25	2	20	0	1	2	25
26-36	8	23	4	1	5	41
37-50	7	13	5	1	5	31
50+	4	7	0	4	4	19
Active Margin	21	63	9	7	16	116

Appendix G *Survey analysis – Correspondence Analysis after grouping categories.*

Correspondence Table

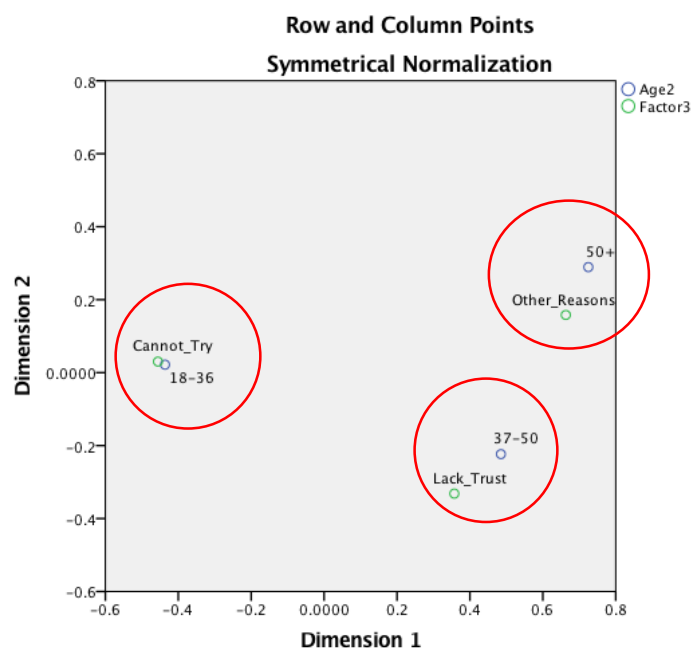
Age	Factor			Active Margin
	Lack_Trust	Cannot_Try	Other_Reasons	
18-36	10	43	13	66
37-50	7	13	11	31
50+	4	7	8	19
Active Margin	21	63	32	116

Summary

Dimension	Singular Value	Inertia	Chi Square	Sig.	Proportion of Inertia	
					Accounted for	Cumulative
1	0.257	0.066			0.989	0.989
2	0.027	0.001			0.011	1.000
Total		0.067	7.764	.101 ^a	1.000	1.000

a. 4 degrees of freedom

Correspondence Map generated by CA (Computation in SPSS version 24)



Appendix H Survey analysis – Chi-Square test for association (SPSS version 24).

Chi-Square Tests

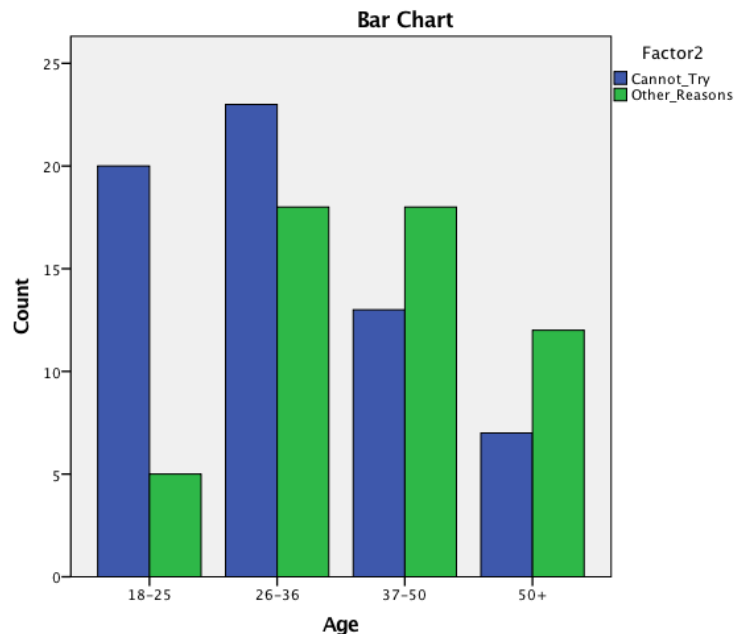
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	10.951 ^a	3	0.012
Likelihood Ratio	11.527	3	0.009
Linear-by-Linear Association	9.892	1	0.002
N of Valid Cases	116		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 8.68.

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	0.307	0.012
	Cramer's V	0.307	0.012
	N of Valid Cases	116	

Bar Chart generated by Chi-Square test for association (*Computation in SPSS version 24*)



Appendix I *Survey translated in English. Source: own computation.*

SURVEY ABOUT MATTRESSES TARGET: THE PORTUGUESE MARKET

Thank you very much for your participation in our research on the mattress market in Portugal. Your opinion is extremely important and will be crucial to the study we are doing at Emma Mattress.

The completion of this questionnaire takes about 4 minutes, and the information provided will be kept anonymous. Your participation is voluntary.

If you have any questions or problems filling out the questionnaire, please contact us by e-mail: ajuda@colchaoemma.pt

Bernardo Silva

1) Gender

- ☐ Female
- ☐ Male
- ☐ Prefer not to say

2) Age

- ☐ <18
- ☐ 18-25
- ☐ 26-36
- ☐ 37-50
- ☐ 50+

3) Have you ever bought a mattress?

- ☐ Yes
- ☐ No

IF YES

3.1) When was the last time you bought a mattress?

- ☐ Less than 2 years ago
- ☐ Between 2 and 5 years
- ☐ Between 5 and 10 years
- ☐ For over 10 years

3.2) Where did you get the last mattress?

- ☐ Physical store
- ☐ Order online
- ☐ Telesales
- ☐ Catalog

4) Do you know any website that sells mattresses?

- ☐ Yes
- ☐ No

IF YES

4.1) What website (or websites) do you know that sells mattresses? It may include the sale of other products than mattresses.

5) Read the following statements and match your opinion

1. Strongly disagree
 2. Disagree
 3. Neither agree nor disagree
 4. Agree
 5. Strongly agree
- ☐ I am willing to buy a mattress up to 150 €.
 - ☐ I am willing to buy a mattress between 150 € and 350 €.
 - ☐ I am willing to buy a mattress between 350 € and 700 €.
 - ☐ I am willing to buy a mattress between € 350 and € 700 if it is awarded “Best of Test” by DECO PROTESTE.
 - ☐ I would buy a mattress online.
 - ☐ I would buy a mattress online if the transportation is free.
 - ☐ I would buy a mattress online if the mattress is cheaper than in the physical store.

6) Classify the following factors in relation to the degree of importance in the decision process of buying a mattress

1. Not at all important
 2. Slightly important
 3. Moderately important
 4. Very important
 5. Extremely important
- ☐ Price
 - ☐ Speed of delivery
 - ☐ Mode of delivery (at home, in-store pick-up)
 - ☐ Warranty

- Possibility of in-store testing
- Possibility to test at home without commitment
- Characteristic of mattress (rolled or opened mattress)

7) What factor would prevent you from buying a mattress online? (the most relevant)

- Lack of trust in payment
- Impossibility to try before you buy
- Shipping costs might increase the price
- I'm afraid that the order will be lost
- Difficulty in coordinating the reception of the mattress (no one at home, for example)

8) If you would buy a mattress online with delivery at the door, how important would be to include the collection of the old mattress in the service?

- Not at all important
- Slightly important
- Moderately important
- Very important
- Extremely important

9) If you would buy a mattress online, which payment method(s) would you prefer?

CHECKBOX STYLE

- Bank transfer
- Multibank MB (online multi-bank reference)
- Credit card
- Paypal
- Payment at the receiving time of the mattress
- Possibility of paying with interest-free installments